

Appl. No. : 10/070,406
Filed : October 7, 2002

AMENDMENTS TO THE CLAIMS

Please amend claims 1-3, 7-9, 11, 13, 15-19, 22, 26-30 and 32-33, as indicated below.
Please cancel claims 20-21 and 31. Please add new claims 35 and 36

1. (Currently Amended) A process for preparing an improved whey protein hydrolysate containing bioactive peptides comprising hydrolysing a whey protein isolate (WPI) with one or more enzymes characterized in that:

- i) the enzyme is a heat labile protease;
 - ii) the hydrolysis is conducted, at a temperature of between about 30°C and 65°C at a pH of about 3.5 to about 9.0 when said enzyme is a neutral protease, at a pH of about 2.5 to about 6.0 where said enzyme is an acid protease; and at a pH of about 5.0 to about 10.0 where said enzyme is an alkaline protease;
 - iii) the hydrolysis is terminated when a degree of hydrolysis of no greater than about 10% has been reached;
 - iv) the hydrolysis is terminated by deactivating said one or more enzymes; and
 - ~~v) the conditions for said step iv) are sufficiently mild to avoid substantial denaturation of peptides or residual proteins in said hydrolysate;~~
- wherein the product ~~production~~ of the process is water ~~highly~~ soluble.

2. (Currently Amended) A process according to claim 1, wherein the enzyme is selected from the group consisting of Protease P6, Protease A, Protease M, Peptidase, Neutrase, Validase, and AFP 2000, ~~and any other heat labile protease.~~

3. (Currently Amended) A process as claimed in claim 1 ~~[[or 2]]~~, wherein said enzyme deactivating step iv) comprises heat deactivation.

4. (Original) A process as claimed in claim 3, wherein said heat deactivation comprises heating said hydrolysate for up to ten seconds to a temperature up to about 100°C.

Appl. No. : **10/070,406**
Filed : **October 7, 2002**

5. (Original) A process as claimed in claim 3, wherein, when said hydrolysis is conducted at a temperature of below about 65°C, said heat deactivating step is conducted at about 65°C to about 70°C for from about 10 seconds to about 15 minutes.

6. (Original) A process as claimed in claim 3, wherein, when said hydrolysis is conducted at a temperature below about 60°C, said heat deactivating step is conducted at about 60° to about 65°C for from about 10 seconds up to about 30 minutes.

7. (Currently Amended) A process as claimed in claim 1 ~~or claim 2~~, wherein said enzyme deactivating step comprises altering the pH of said whey protein-containing substrate to a pH at which said protease is not active.

8. (Currently Amended) A process as claimed in claim 7, wherein said enzyme deactivating step includes heat deactivation ~~as claimed in any one of claims 3 to 6~~.

9. (Currently Amended) A process as claimed in claim 1 ~~or claim 2~~, wherein said enzyme deactivating step iv) comprises subjecting said hydrolysate to ultrafiltration with an ultrafiltration membrane having a nominal molecular weight cutoff in the range of about 10-500 kDa.

10. (Original) A process as claimed in claim 9, wherein said ultrafiltration membrane has a nominal molecular weight cut off in the range of about 10-200 kDa.

11. (Currently Amended) A process as claimed in claim 1 ~~any one of the preceding claims~~, wherein said enzyme is immobilised on an inert support during said hydrolysis step ii).

12. (Original) A process as claimed in claim 11, wherein said inert support is Roehm Eupergit, carrageenan particles, chitosan particles or any other suitable inert support material.

13. (Currently Amended) A process as claimed in claim 1 ~~any one of the preceding claims~~, wherein the degree of hydrolysis is from about 3% to about 10%.

Appl. No. : 10/070,406
Filed : October 7, 2002

14. (Original) A process as claimed in claim 13, wherein the degree of hydrolysis is from about 3% to about 5%.

15. (Currently Amended) A process as claimed in claim 1 ~~any one of the preceding claims~~, wherein the whey protein hydrolysate so produced comprises one or more bioactive peptides selected from the group consisting of SAP (SEQ ID NO: 1), MKG (SEQ ID NO: 2), ALPMH (SEQ ID NO: 3), LIVTQ (SEQ ID NO: 4), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

16. (Currently Amended) A process as claimed in claim 1 ~~any one of the preceding claims~~, wherein the whey protein hydrolysate so prepared comprises at least one bioactive peptide selected from the group consisting of LIVTQ (SEQ ID NO: 4), MKG (SEQ ID NO: 2) and ALPMH (SEQ ID NO: 3), in combination with at least one bioactive peptide selected from the group comprising SAP (SEQ ID NO: 1), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

17. (Currently Amended) A pharmaceutical composition comprising one or more bioactive peptides produced by the process of Claim 1 ~~of the bioactive peptides produced in the process of anyone of claims 1 to 16~~ together with a pharmaceutically acceptable carrier, wherein the one or more bioactive peptides are selected from the group consisting of SAP (SEQ ID NO: 1), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

18. (Currently Amended) A pharmaceutical composition as claimed in claim 17, additionally comprising at least one bioactive peptide selected from the group consisting of LIVTQ (SEQ ID NO: 4), MKG (SEQ ID NO: 2) and ALPMH (SEQ ID NO: 3) ~~the bioactive peptide MKG (SEQ ID NO: 2) together with a pharmaceutical acceptable carrier.~~

Appl. No. : 10/070,406
Filed : October 7, 2002

19. (Currently Amended) A method of treating or preventing hypertension in a mammal, said method comprising administering an effective amount of a ~~bioactive peptide produced by hydrolysing WPI~~ hydrolysate produced according to the process of claim 1 ~~any one of claims 1 to 16~~ to a mammal in need thereof.

20. – 21. (Cancelled)

22. (Currently Amended) A non-bitter, water ~~highly~~-soluble WPI hydrolysate product containing bioactive peptides, prepared by the process of claim 1 ~~any one of claims 1 to 16~~.

23. (Original) A product as claimed in claim 22, wherein the degree of hydrolysis of the WPI is about 3% to about 5%.

24. (Original) A product as claimed in claim 23, wherein the main particle size of whey proteins in the product is less than about 30 microns.

25. (Original) A product as claimed in claim 24, wherein the main particle size is less than about 3 microns.

26. (Currently Amended) A product as claimed in claim 22 ~~any one of claims 22 to 25~~, which is substantially clear or white in solution.

27. (Currently Amended) A product as claimed in claim 22 ~~any one of claims 22 to 26~~, wherein one or more of said bioactive peptides is selected from the group consisting of SAP (SEQ ID NO: 1), MKG (SEQ ID NO: 2), ALPMH (SEQ ID NO: 3), LIVTQ (SEQ ID NO: 4), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTPEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

28. (Currently Amended) A product as claimed in claim 22 ~~any one of claims 22 to 26~~, comprising at least one bioactive peptide selected from the group consisting of LIVTQ (SEQ ID NO: 4), MKG (SEQ ID NO: 2) and ALPMH (SEQ ID NO: 3), in combination with at least

Appl. No. : 10/070,406
Filed : October 7, 2002

one bioactive peptide selected from the group comprising SAP (SEQ ID NO: 1), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTIEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

29. (Currently Amended) A food product containing a WPI hydrolysate product as claimed in claim 22~~any one of claims 22 to 28~~.

30. (Currently Amended) A method of reducing systolic blood pressure in a subject comprising administering an effective amount of a WPI hydrolysate as claimed in claim 22~~any one of claims 22 to 28~~ or food product containing said hydrolysate as claimed in claim 29 to a patient in need thereof.

31. (Cancelled)

32. (Currently Amended) A pharmaceutical composition comprising the product of claim 22~~any one of claims 22 to 28~~ together with a pharmaceutically acceptable carrier.

33. (Currently Amended) Any one or any combination of two or more peptides selected from the group consisting of ~~comprising~~ SAP (SEQ ID NO: 1), ~~MKG (SEQ ID NO: 2)~~, ~~ALPMH (SEQ ID NO: 3)~~, ~~LIVTQ (SEQ ID NO: 4)~~, VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTIEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

34. (Previously Presented) Any one bioactive peptide selected from the group consisting of LIVTQ (SEQ ID NO: 4), MKG (SEQ ID NO: 2) and ALPMH (SEQ ID NO: 3), in combination with at least one bioactive peptide selected from the group comprising SAP (SEQ ID NO: 1), VSLPEW (SEQ ID NO: 5), INYWL (SEQ ID NO: 6), LKPTIEGDLEIL (SEQ ID NO: 7) and LKGYGGVSLPEW (SEQ ID NO: 8).

Appl. No. : **10/070,406**
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35. (New) A method of treating or preventing hypertension in a mammal, said method comprising administering an effective amount of the pharmaceutical composition of claim 17.

36. (New) A method of treating or preventing hypertension in a mammal, said method comprising administering an effective amount of the pharmaceutical composition of claim 18.